40. (Twice Amended) A method for preventing neuronal cell death in a mammal susceptible to or having Parkinson's disease, comprising administering to the mammal in need thereof an effective therapeutic amount of a compound that inhibits MLK activity in a neuronal cell and thereby prevent neuronal cell death occurring in a mammal susceptible to or having Parkinson's disease.

43. (Twice Amended) A method for treating Parkinson's disease in a mammal in need thereof, comprising administering to the mammal an effective therapeutic amount of a compound that inhibits MLK activity and thereby prevents neuronal cell death occurring in a mammal susceptible to or having Parkinson's disease, wherein the compound is identified by a method for assessing a compound's ability to prevent neuronal cell death occurring in mammal susceptible to or having Parkinson's disease, comprising:

a) contacting a compound with neuronal cells having activated MLK kinase activity; and

b) determining the number of neuronal cells that die;

wherein a decreased number of dead neuronal cells in the presence of the compound compared to the number of dead neuronal cells in the absence of the compound is indicative of the compound's ability to prevent neuronal cell death occurring in a mammal susceptible to or having Parkinson's disease.

Please add the following new claim:

44. The method of claim 36 wherein the mammal is a human.

REMARKS

In the Official Action of February 13, 2003, the Examiner requested cancellation of claims directed to non-elected species, i.e. diseases other than Parkinson's disease, was requested.

Applicant has now amended the present claims to delete the non-elected species. However, in accordance with the provisions of 37 CFR 1.146, applicant reserves the right to

reassert claims of the same scope as the original generic claims in the event that the species claim to Parkinson's disease is ultimately found to be allowable.

Claims 36-43 have been rejected under 35 U.S.C. 112, first paragraph, as containing subject matter not adequately described in the specification so as to enable one skilled in the art to practice the invention. This ground of rejection is traversed.

The Examiner contends that the specification fails to disclose any compounds that have been identified using the methods of the present invention that are useful in the treatment of Parkinson's disease. The Examiner further states that there is no guidance on how to select suitable compounds, and that the structure of such compounds has not been disclosed. The Examiner also cites *In re Wands*, 8 USPQ2d 1400 (CAFC 1988), as standing for the proposition that the absence of working examples renders the present claims overly broad.

The above analysis on the part of the Examiner overlooks the fact that applicant is not claiming a specific inhibitor, or a class of inhibitors, for treating Parkinson's disease. If the inhibitors had been claimed, rather than the method of treatment, then the Examiner's arguments regarding a lack of description of the structure might be more relevant. However, applicants are not now claiming specific inhibitors, either directly or in a product by process format. What applicant is claiming is that an MLK inhibitor can be used to treat Parkinson's disease. Applicant has provided a detailed description of a procedure for determining whether a compound is in fact an MLK inhibitor. Applicant notes that claims directed to methods for determining whether a compound is suitable as an MLK inhibitor in a companion application have not been rejected by the US Patent and Trademark Office on the basis of a lack of compliance with enablement requirement.

The Examiner cites the *Wands* case to support the rejection of the present claims as lacking enablement. Applicant disagrees that *Wands* supports the Examiner's position, and maintains instead that Wands supports applicant's position. The Court in *Wands* held that the specification provided ample support for claiming immunoassay methods using a generic class of antibodies even though applicant had deposited a single hybridoma cell line secreting a single antibody. The *Wands* Court concluded that one skilled in the art could readily produce and screen other monoclonal antibodies falling within the generic class without undue experimentation. The Court also concluded that enablement is not precluded by the necessity for

some experimentation such as routine screening, and that the presence or absence of working examples is not determinative.

In the present case, the specification discloses a detailed protocol for determining whether a compound is an inhibitor of MLK. See page 19, col. 21 to page 20, line 20, and Example 8 of the specification. The specification also describes in detail the use of such inhibitors to treat neurological conditions such as Parkinson's disease. See pages 20-24 of the specification. The Examiner is asked to carefully consider these facts as they bear on the issue of enablement.

Claims 36-37, 39-41 and 43 have also been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. The Examiner states that the claims are indefinite as being drawn to non-elected subject matter, i.e. diseases other than Parkinson's disease. This ground of rejection is also traversed.

The claims of this application, as amended, are now directed to Parkinson's disease. Applicant, however, reserves the right to reinstate claims of more generic scope, assuming that the species claims directed to Parkinson's disease are ultimately held to be allowable.

Claims 36-43 stand rejected under 35 U.S.C. 103(a) as obvious over Miller et al. (USP 6,060,247). This ground of rejection is traversed.

Miller et al. describe assays that can be used to screen compounds for neural cell growth and/or neurotoxicity. The Miller, et al. assay involves the use of adenovirus vectors to transfect postmitotic cells, such as neurons, and express useful genes. The genes exemplified in the reference are the p53 tumor suppressor gene, and the Trk and p75 growth factor receptor genes. See col. 7, lines 25-30 of the reference. The reference states that the compounds screened are useful as cancer therapeutics.

Miller et al. does recite alternative adenovirus constructs that can be used, including MLK and JNK. However, these alternative constructs are contained in a "shopping list" of numerous possible constructs listed under the heading "Other Embodiments", and there is no exemplification or further explanation of the use of these constructs. The mention of "Parkinson's Disease" is only discussed in the "Background of the Invention" section of the reference, and then only to state that apoptosis occurs in the course of Parkinson's Disease.

There is absolutely no connection in the reference between the inhibition of MLK activity and the treatment or prevention of Parkinson's disease.

In view of the aforementioned facts and reasons, this application is now believed to overcome all remaining rejections, and to otherwise be in proper condition for allowance. Accordingly, reconsideration and withdrawal of the outstanding rejections, and favorable action on this application, is solicited.

Respectfully submitted,

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DATE: 4/21/03

MARKED-UP CLAIMS

36. (Twice Amended) A method for treating [a neurological condition] Parkinson's disease in a mammal in need thereof, comprising administering to the mammal an effective amount of a compound that inhibits MLK activity and thereby prevent neuronal cell death occurring in a mammal susceptible to or having [a neurological condition] Parkinson's disease.

40. (Twice Amended) A method for preventing neuronal cell death in a mammal susceptible to or having [a neurological condition] Parkinson's disease, comprising administering to the mammal in need thereof an effective therapeutic amount of a compound that inhibits MLK activity in a neuronal cell and thereby prevent neuronal cell death occurring in a mammal susceptible to or having [a neurological condition] Parkinson's disease.

43. (Twice Amended) A method for treating [a neurological disorder] Parkinson's disease in a mammal in need thereof, comprising administering to the mammal an effective therapeutic amount of a compound that inhibits MLK activity and thereby prevents neuronal cell death occurring in a mammal susceptible to or having [a neurological condition] Parkinson's disease, wherein the compound is identified by a method for assessing a compound's ability to prevent neuronal cell death occurring in mammal susceptible to or having [a neurological condition] Parkinson's disease, comprising:

a) contacting a compound with neuronal cells having activated MLK kinase activity; and

b) determining the number of neuronal cells that die;

wherein a decreased number of dead neuronal cells in the presence of the compound compared to the number of dead neuronal cells in the absence of the compound is indicative of the compound's ability to prevent neuronal cell death occurring in a mammal susceptible to or having [a neurological condition] Parkinson's disease.

Via: First Class Mail

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